DN15 – DN150 resp. ½" – 6"

full-port design

for safe and representative sampling of aggressive or even toxic liquids from pressurized pipelines or vessels, without any process interruptions.

Modular Design

SSV-B Inline Sampling Ball Valves are available with standard handlever for 180° operation. The valves are distinguished by its dead-space-free design as well as the extremely short outlet way for the representative sample, even for viscous or solids-containing media.

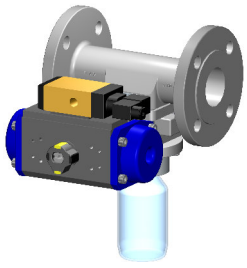
The sturdy bodies are made of stainless steel casting 1.4408 (CF-8M), optional with resistant linings such as PFA or PFA-AS (conductive).

Main Features

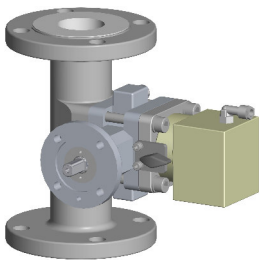
- Full-port design, no pressure drop
- Only one opening to the atmosphere
- Easy and safe operation by handlever, 2 stops for 180° motion, optionally with pneum. actuator DA
- One-piece ball/shaft, PFA-encapsulated, for defined sampling volume of appr. 45 ml horizontal (optional appr. 25 ml), appr. 25 ml on vertical installation
- All-purpose valve unit – installation on large size pipelines, vessels etc.
- Sizes DN15 - 150 PN16, ½" - 6"-150lbs
- Face to face acc. to EN 558-1, range 1 resp. ASME B16.10

CE **Conformity acc. to European Pressure Equipment Directive 97/23/EC (PED)**

Standard



with pneum. actuator DA



with vertical bottle adapter

Options / Accessories

- Bottle support with spring-loaded plate, adjustable
- Pneumatic actuator 180° DA (double-acting)
- Safety cabinet SS304 with inspection windows
- Flanges with groove, PN40, ANSI 300lbs etc.
- Safety padlock
- Activated carbon filter
- Vertical adapter
- Safety plug for adapter
- Metal safety basket

other options on request

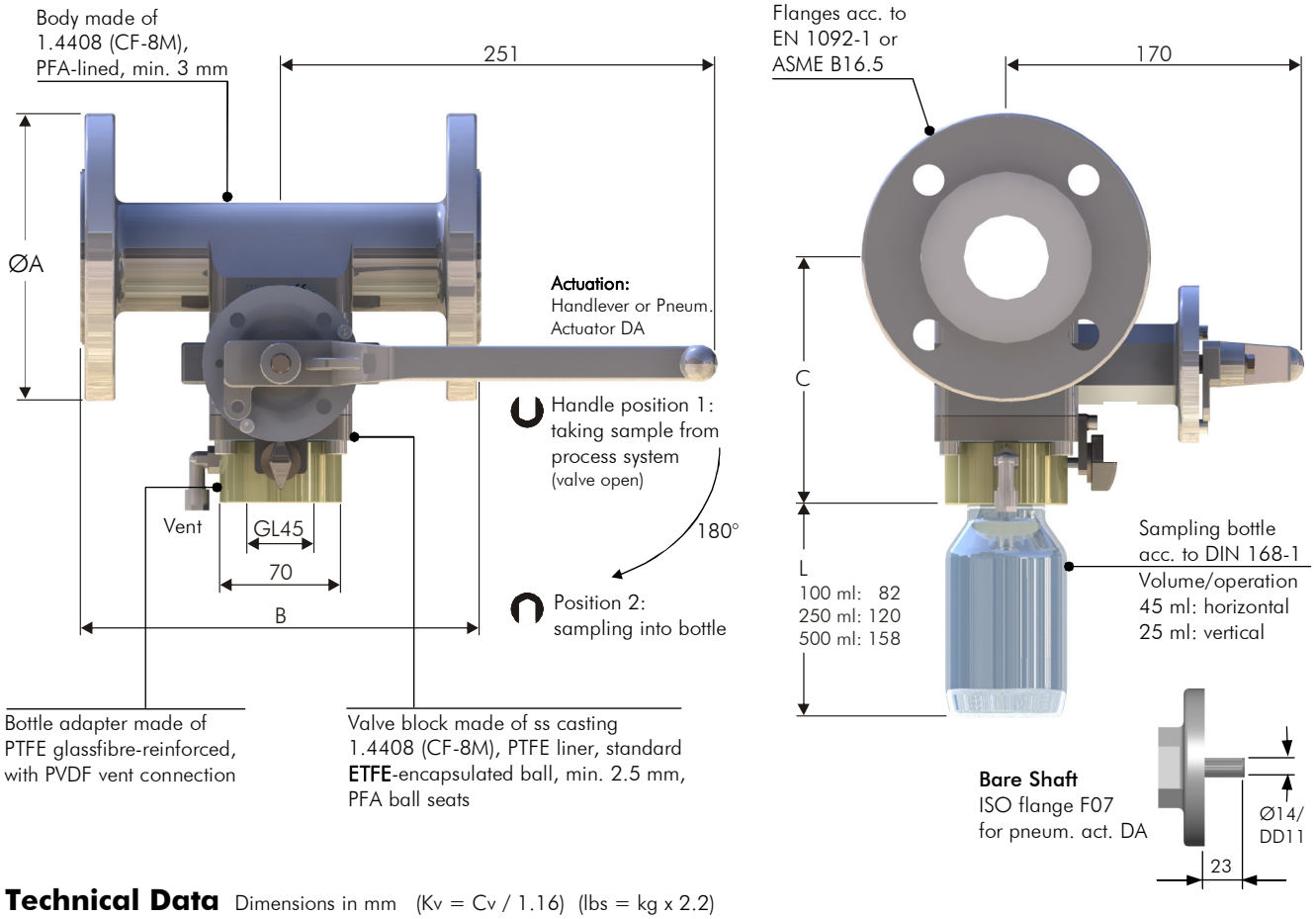
Operating Conditions

- Temperature range from –40°C (-40°F) up to +150°C (+302°F), depending on lining material
- Pressure range up to 16 bar (232 psi), depending on size/pressure/temperature

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, resp. API 598.
- Marking of valves on body and name plate acc. to EN 19.
- Material- resp. test certificates acc. to EN 10204-3.1/2.2/2.1

Construction of Valve



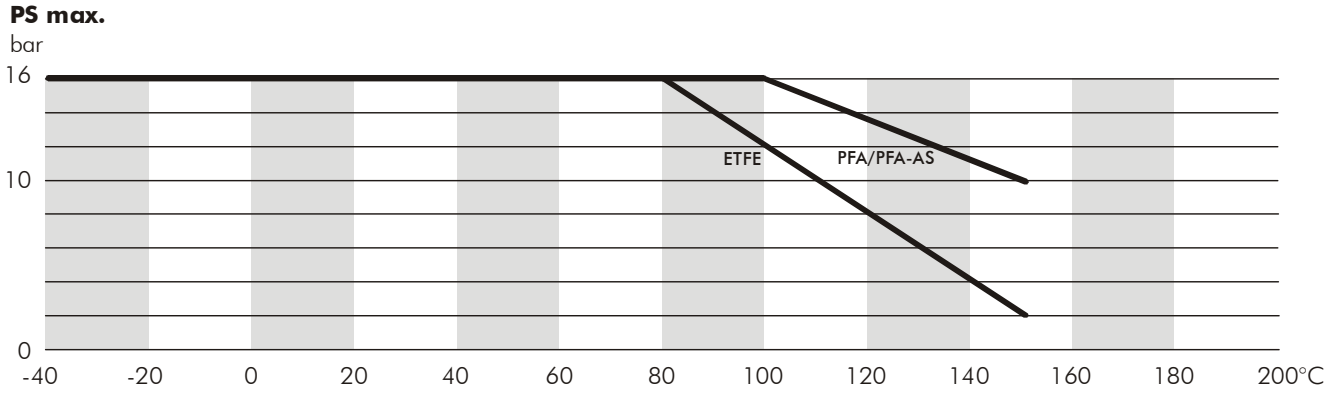
Technical Data

Dimensions in mm (Kv = Cv / 1.16) (lbs = kg x 2.2)

DN Size	**A** DIN	**A** ANSI	**B** DIN	**B** ANSI	**C**	appr. **Cv** usg/min	**Nm***	**kg** DIN	**kg** ANSI
15/½"	95	95	160	160	119	18	35±5	5.3	5.3
20/¾"	98	98	160	160	125	36	35±5	6.3	6.3
25/1"	115	108	160	165	125	70	35±5	6.8	6.9
40/1½"	150	127	200	165	132	216	35±5	8.9	8.0
50/2"	165	152	230	178	137	321	35±5	10.6	9.3
80/3"	200	190	310	203	151	930	35±5	16.0	17.0
100/4"	220	229	350	229	168	1'425	35±5	26.6	25.2
150/6"	285	279	480	267	193	1'980	35±5	40.5	35.0

F/F acc. to DIN EN 558-1 range 1 resp. range 3 and ASME B16.10, other sizes and materials upon request
* Break-away torque without safety factor for pneum. 180° actuators, at standard combination such as ball ETFE/seat PFA

Pressure-/Temperature Diagram

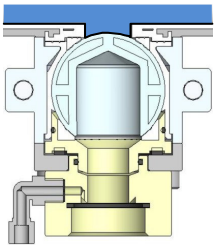


Operating Principle SSV-B Series (Sampling under pressure, with bottle)

Horizontal installation

Sampling volume approx. 45 ml (optional 25 ml or 12 ml)

Note: depending on the req. volume, sampling procedure has to be repeated accordingly.

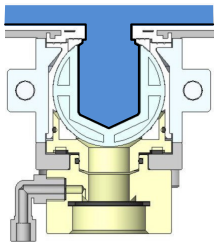


Valve in closed position

The valve is installed into a horizontal pipeline. The process line still provides full passage and allows easy cleaning at any time.

In closed valve position, the handlever is in its initial vertical position, assured by two mechanical stops.

In order to prevent any unauthorized operation, the handlever can be equipped with a safety padlock.



Valve in opened position for sampling

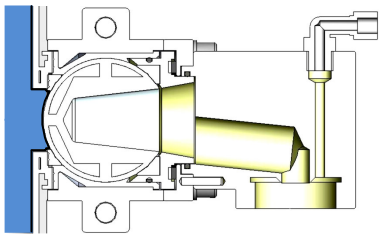
Liquid process media flows through the piping system. For taking out a sample, handlever is rotated counter-clockwise at 180° towards the mechanical stop. The entire volume of the sampling ball is being filled with product.

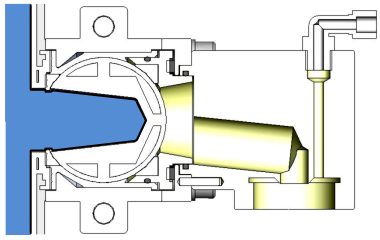
After a few seconds, lever is rotated 180° backwards into its initial position. Trapped media is moved downwards in order to flow into the lab bottle as a representative sample.

Vertical installation

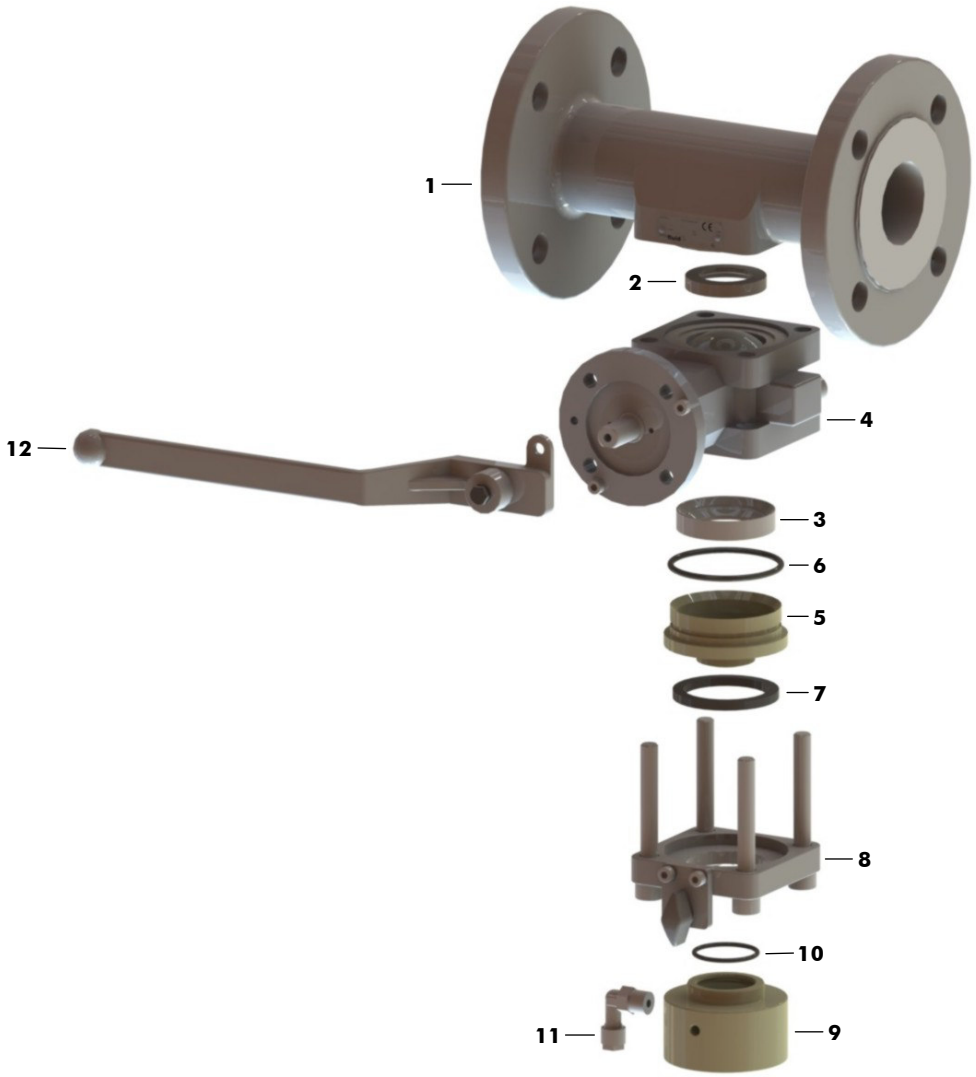
Sampling volume approx. 25 ml

Sampling procedure as described for horizontal version.





Parts List
Manual Valve compl.
Standard Version (Picture showing DN 50 PN16, stainless steel body PFA-lined/ball ETFE-encapsulated, with handlever)



Main Components

Item	Qty.	Description	**Body PFA-lined** (stand.), **ball ETFE-encapsulated** Materials	Body PFA-lined, ball PFA-encapsulared Materials	Body SS (unlined), solid ball SS316L Materials
1	1	Body DN50 PN16	CF-8M (1.4408)/PFA	CF-8M (1.4408)/PFA	CF-8M (1.4408)
2	1	Ball Seat	PFA	PTFE	PTFE
3	1	Ball Seat vertical	PFA	PTFE	PTFE
4	1	Valve unit: 2-piece body, ball, liner	CF-8M/ball ETFE/PTFE	CF-8M/ball PFA/PTFE	CF-8M/ball SS/PTFE
5	1	Ball Insert	PTFE-R	PTFE-R	PTFE-R
6	1	O-Ring (ball insert)	FEP/VMQ	FEP/VMQ	FEP/VMQ
7	1	Elastomer Pressure Ring	VMQ	VMQ	VMQ
8	1	Spacer unit: spacer, locking plate, bolts	SS316L/SS304	SS316L/SS304	SS316L/SS304
9	1	Bottle Adapter	PTFE-R	PTFE-R	PTFE-R
10	1	O-Ring (bottle adapter)	FEP/FPM	FEP/FPM	FEP/FPM
11	1	Elbow 90° (vent connection)	PVDF	PVDF	PVDF
12	1	Handlever unit: lever, bolts	CF-8 (1.4308)/SS304	CF-8 (1.4308)/SS304	CF-8 (1.4308)/SS304

other materials upon request

Specification

Project-/Customer Data Inquiry/Date: **Ref. SF**

Company:		Contact Person:		Phone:	
Address:		Function:		Fax:	
ZIP/Place:		Department:		E-mail:	
Project:		Phone direct:		Mobile:	

Operating Conditions

Media / Chemical Composition:

☐ liquid ☐ powdery ☐ crystallizing ☐ sticky ☐ Spec. Grav. ____
☐ gaseous ☐ Solids ___ % ☐ viscous ☐ Flow Velocity _____ m/s
☐ abrasive ☐ Particle ____ mm ☐ Visc. _____ cp ☐ Flow Rate _____ m^3/hr

Pressure
max. ____ bar
min. ____ bar

Temperature
max. _____ °C
min. _____ °C

Sampl. Volume
☐ 45 ml horiz.
☐ 25 ml horiz.
☐ 12 ml horiz.

Installation / Environment
☐ horizontal ☐ Room dry
☐ vertical 25 ml ☐ Room humid
☐ _____ ☐ outdoor

Remarks:

SSV-B Product Code

Specification of a complete Inline Sampling Ball Valve SSV-B Series

Product code	Nom. size	Flange conn.	Body	Lining body	Ball	Ball liner	Actuation/ shaft end	Bottle adapter	Bottle thread
SSV-B	**DN50**	**PN16**	**G15**	**A85**	**U91**	**A80**	**HH**	**H95**	**45**
	DN15 - 150	PN16	G15 CF-8M	A85 PFA	U85 PFA	A80 PTFE	HH Handlever	H95 PTFE-R hor.	45 GL45
	½" – 6"	ANSI150#	G34 SS316L	A86 PFA-AS	U86 PFA-AS	A82 PTFE-AS	DD DD drive	H97 PTFE-T-AS hor.	32 GL32
		ANSI300#			U91 ETFE		DA pneum. DA	H32 SS316L hor.	
		JIS 10K			S32 SS316L			V95 PTFE-R vert.	
					S44 Hast.C			V97 PTFE-T-AS vert.	
								V32 SS316L vert.	